

**IN THE UNITED STATES DISTRICT COURT FOR THE  
WESTERN DISTRICT OF PENNSYLVANIA**

BEST MEDICAL INTERNATIONAL, INC.  Plaintiff,  vs.  ACCURAY INC., a corporation;  Defendant.	Case No. 2:10-CV-1043 (TFM)
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**ACCURAY'S REPLY BRIEF IN SUPPORT OF ITS OBJECTIONS TO SPECIAL  
MASTER'S REPORT AND RECOMMENDATIONS ON CLAIM  
CONSTRUCTION**

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Accuray's Objections to the Special Master's Report and Recommendations present the Court with three options. The Court can adopt the Special Master's Report without revision, as BMI urges in its Opposition. The Court can send the Report back to the Special Master with instructions to complete the constructions of "cost function" and "a computer adapted to," clarify the construction of "changing the beam weights," and construe the remaining disputed claim terms. The Court can complete the job of construing the claims itself, as Accuray urges.

If the Court chooses the first option, it faces both procedural and substantive challenges. The Court cannot efficiently dispose of this case without issuing controlling claim constructions for *each* of the disputed claim terms. Because the Special Master's constructions do not address the parties' disputes about infringement or invalidity, and he has improperly neglected to construe many of the disputed terms, the Court will be required to do further serial claim constructions during summary judgment or trial. Furthermore, if the case goes up on appeal, the case will likely be sent back to the Court for further infringement and/or invalidity proceedings under a revised claim construction.

The Special Master's constructions of "cost function" as not limited to Column 13 and Claim 25 as not limited to the SARP algorithm are simply incorrect as a matter of law. The Special Master's recommended constructions state only what the terms exclude, but do not state what the claim terms actually mean. The Special Master's repeated recitation of the magic words "ordinary and customary meaning" for these disputed claim terms is not in and of itself a sufficient construction. Although the Special Master's approach may be appealing at first glance, it violates at least three basic principles of claim construction law. First, this construction completely *ignores* the perspective of one of ordinary skill in the art. Second, this construction improperly shifts the responsibility of claim construction from the Court to the jury because it

does not define the disputed claim terms sufficiently that a lay juror can determine whether the accused infringing device infringes the asserted claims. The lay juror cannot possibly know what the “ordinary and customary meaning” of a technical term in the field of radiation physics is without proper guidance from the Court. Third, this construction allows BMI to argue different claim constructions depending on the circumstance. If the Court adopts the Special Master’s Report without revision, it will undoubtedly face additional claim construction issues.

If the Court chooses the second option and sends the Report back to the Special Master to finish the job, including construction of the remaining disputed claim terms, Accuray fears that the resulting claim constructions will take substantially more time and resources, and may not resolve the parties’ dispute. The reason the parties opted for a Special Master was to achieve an efficient resolution with less burden on the Court, but unfortunately this has not been the result.

Accuray urges the Court to choose the third option, and reject the Special Master’s Report and complete the claim construction itself. To understand the claims, one must understand how radiation treatment planning works, the state of the art, and *what the inventors invented*. The Court has the benefit of substantial briefing on the disputed issues, and should rely on the un rebutted testimony of Dr. Rosen for the background of the technology and the state of the art. Dr. Rosen’s reputation is impeccable and he was recognized by the patentees as a preeminent researcher in the field. BMI had the opportunity to present an expert, and chose not to do so.

The Special Master strained to find a broad construction of Claim 25 in the face of overwhelming evidence that the inventors invented a much narrower improvement invention. He could do so only by ignoring the perspective of the skilled artisan and the disclosure in the specification. In fact, this is one of the clearest cases of a patent that is coextensive with the only disclosed embodiment. A construction that limits the claims to that sole disclosed embodiment

is perfectly acceptable, as long as certain claim construction principles are met.

In deciding whether the Special Master's constructions are correct, the Court should trust its instincts and focus on the question, "What did the inventors invent?" The Special Master's Report does not answer this question, concluding for Claim 25 only that the "cost function" is not limited to the formulas of column 13 and the optimization algorithm is not limited to SARP. Neither construction is supported by the intrinsic and extrinsic evidence, or the understanding of one skilled in the art. And neither construction resolves the disputes between the parties.

The skilled artisan would have understood that the '283 patent was based on Dr. Webb's seminal, unpatented work with the simulated annealing (SARP) optimization algorithm. The '283 patent describes and claims a narrow improvement over the treatment planning system developed by Dr. Webb -- adding a "modified cost function" that uses partial volume data and CDVH curves to "account for structure volumes as a whole" and "account for the relative importance of varying surrounding structure types" to "*existing simulated annealing methods.*" See Col. 3:17-29. The '283 patent takes this "modified cost function" and pops it into the SARP algorithm used extensively by Dr. Webb. Although BMI and the Special Master pointed to other cost functions and optimization algorithms as evidence of "ordinary and customary meaning," one of skill in the art would have immediately recognized that the inventors developed a "modified cost function" that could be incorporated into "existing simulated annealing methods." The inventors certainly did not invent a new optimization algorithm, as evidenced by the incorporation by reference of the Webb articles to provide the *only* supporting disclosure for how the optimization algorithm works. Moreover, a skilled artisan would have understood that cost functions and optimization algorithms have to be carefully matched to work together, and that the disclosure of the "modified cost function" is the only distinction from the disclosure in the

Webb articles. If “cost function” is construed as *any* cost function, the so-called invention is clearly invalid as anticipated by the very Webb articles that serve as part of the ‘283 patent disclosure. No examiner would have allowed the claims to issue under that interpretation. Contrary to the Special Master’s conclusion that invalidity is for another day, it is entirely appropriate to consider cited prior art in claim construction because it is *intrinsic* evidence.

The Special Master also erred in arbitrarily narrowing the claim construction disputes without the parties’ agreement. Accuray never agreed that the other disputed claim limitations were off the table. Accuray merely shortened its oral presentation out of respect for the Special Master’s stated desire to complete the Markman hearing in one day, and with the understanding that the issues were fully briefed and the purpose of oral argument is to answer the Court’s questions. Given the voluminous briefing and lengthy presentation materials Accuray provided to the Court, the notion that Accuray would narrow the dispute to one or even three terms is inconceivable. All disputed claim terms should be construed for both Claims 25 and 29.

#### **I. The Special Master Failed to Define “Cost Function”**

The Special Master committed legal error in leaving it to the jury to decide what the “cost function” is. The Special Master recommended only that “the term ‘cost function’ is not limited to the cost function of column 13, lines 4-39, of the ‘283 patent.” (Report at p. 143) At a minimum, if the Court decides the term “cost function” means simply “an analytical determination of whether, when any change is made to the strengths of the beams being used to treat the patient, the resultant dose distribution is closer to the result desired by the user,” as BMI argues, the claim construction order should state that the definition. Otherwise, the Court will face the task of performing additional claim construction during summary judgment or trial.

On pages 14-15 of its Response, BMI cites a number of excerpts from the Special Master’s Report, but none of these excerpts define what the cost function *is*. To determine whether the

Special Master's construction of cost function is sufficient, the Court need only ask, "Would any lay juror know what a 'cost function' is, as that term is used in the patent and as understood by skilled artisans in the field of radiation treatment planning, without help from the Court?"

Without a definition provided by the Court, a juror could not possibly understand what "cost function" meant to one of ordinary skill in the art, and thus could not determine whether an accused system infringes the asserted claims. The Special Master's inchoate construction improperly allows BMI to argue that "cost function" means whatever it wants it to mean.

## **II. The Term "Cost Function" Must Be Construed to Have the Same Meaning in Claim 25 and Claim 29 And Must Be Limited to Column 13**

BMI fails to respond to Accuray's argument that the Special Master committed legal error in construing the term "cost function" to have two different conflicting meanings in claims 25 and 29. In Claim 25, the Special Master concluded that "the term 'cost function' is not limited to the cost function of column 13, lines 4-39, of the '283 patent." (R. 143). In Claim 29, however, the Special Master concluded that the "cost function" is *limited* to column 13, lines 4-39. *See* R. at 164 (Claim 29 "requires that the cost function use partial volume data. The only cost function algorithm disclosed in the '283 patent as using partial volume data is the cost function set forth in column 13, lines 4-39.") Neither the Special Master nor BMI has articulated a reason for departing from the longstanding rule that the same claim term must be construed to have the same meaning throughout the patent. *See z4 Techs., Inc. v. Microsoft Corp.*, 507 F.3d 1340, 1348 (Fed. Cir. 2007).

The fact that claim 29 is written in means plus function format does not permit the Special Master to construe the term "cost function" differently in claims 25 and 29. Under 35 U.S.C. § 112, ¶6, each of the *means* elements is limited to the specific structure disclosed in the specification for performing the claimed function and structural equivalents that perform the

identical function. *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1328-29 (Fed. Cir. January 20, 2012). The “cost function” in claim 29 is not a “means” element, but rather a disputed term within the functional limitation “means for incorporating a **cost function** at each iteration to approach correspondence of partial volume data associated with the proposed radiation beam arrangement to partial volume data associated with a predetermined desired dose prescription.” The parties agree that the recited “means” in claim 29 is a computer configured to run the simulated annealing algorithm, and that each of the terms and phrases in the functional limitations of claims 25 and 29 should have the same meaning. Accordingly, the Special Master’s construction of the term “cost function” as limited to the cost function set forth in column 13, lines 4-39 should apply to **both** claims 25 and 29.

### III. Explicit Lexicography Trumps “Ordinary and Customary Meaning”

Although BMI acknowledges that a patentee may act as a lexicographer (Response at 4), BMI nevertheless wants to limit the construction of “cost function” to a single introductory sentence cherry-picked from Column 13. Col. 13:1-4. BMI ignores the rest of Column 13 in which the patentees explicitly define a very specific cost function, namely, a non-linear cost function that incorporates CDVH curves which are divided into weighted zones. Indeed, the very next sentence states: “In the cost function **of the present invention**, each region, or zone, of the CDVH is assigned a relative weight, according to the importance of that region, or zone, of the CDVH.” Col. 13:4-7 (emphasis added). BMI also overlooks the rest of that paragraph, which explicitly defines the cost function of the present invention according to a specific set of formulas that are mathematically designed to take into account the relative cost of each zone (Cz), the relative weight of each zone (Wz), and the area of the zones (Ap/Ad), to overcome the drawbacks associated with prior art cost functions. *See* Col. 13:53-14:10; 15:17-46. That explicit definition trumps any “ordinary and customary meaning.”

BMI argues that: “Accuray concedes that there were at the time of filing a number of mathematically-described optimization goals generally known as ‘cost functions,’ and that those cost functions did not necessarily include the formulas and variables described in column 13,” and thus “ordinary meaning” must apply. (Response at 5) The patentees, however, did not invent or claim “cost functions” in general, and characterized existing cost functions as “insufficient.” Col. 3:25-48 (emphasis added). What the patentees purportedly invented is an *improved* cost function that “account[s] for structure volumes as a whole” and “account[s] for the relative importance of varying surrounding structure types” – namely, a cost function that uses partial volume data inputs to generate CDVH curves. Indeed, when the Special Master asked what the patentees “invented,” BMI conceded that the claimed cost function is an *improved* cost function specifically designed to overcome the drawbacks of prior art methods. Specifically, BMI’s counsel responded that the invention is “being able to look at the volumes as a whole, as opposed to only looking at certain areas.” (Tr. p. 70:6-17) BMI’s counsel further noted that the prior methods “didn’t look at the volume as a whole.” *Id.*

BMI now attempts to explain away its concession, arguing that it “did not assert a new argument during the claim construction hearing” but rather quoted from Col. 3:25-29 of the specification. (Response at 6) The issue is not that BMI “asserted a *new* argument,” but rather that BMI admitted that a cost function which “accounts for structure volumes as a whole” is *the only aspect of the claimed invention that is “new” or “novel.”* BMI admitted that all of the other claim elements were known and practiced in the prior art before the filing date of the patent. If all the claim elements were admittedly in the prior art – except for a new and improved cost function – then the claimed “cost function” must be limited to the specific cost function defined in the specification. Otherwise, the Patent Office would not have allowed the claim to



issue. BMI also argued the combination of old methods was new, but these methods had previously been combined in Webb and other prior art, and thus could not be patentable.

BMI's argument that the Special Master conducted a fact-intensive analysis like that in *Astrazeneca* is not supported by the Report itself. BMI does not even attempt to distinguish *AstraZeneca* or explain why the Special Master's conclusion should be adopted when it is contrary to the holding in *AstraZeneca* under similar facts. As discussed in Accuray's Objections, the facts here are squarely on point with *Astrazeneca*.

#### **IV. BMI Cannot Refute that the Patentees Disavowed Known Cost Functions**

BMI fails to respond to Accuray's argument that the patentees made a clear and unmistakable disclaimer of known prior art cost functions, other than to parrot the Special Master's conclusion that the patentees did not disavow "the ordinary scope of that term [cost function]" (Response at p. 5). The specification explains that the known cost functions were *insufficient* because they do not account for the structure volumes as a whole" (Col. 3:25-27); "do not account for the relative importance of varying surrounding structure types" (Col. 3:29-30); and "do not allow the physician to utilize the familiar partial volume data associated with Cumulative Dose Volume Histogram ('CDVH') curves in establishing the desired dose distributions" (Col. 3:49-52). The specification could not be any clearer that the patentees excluded these known cost functions from the invention because they would not work to achieve the intended purpose of the invention.

#### **V. The Phrase "the Cost Function of the Present Invention" is not Boilerplate**

BMI merely repeats the Special Master's conclusion that the language "of the present invention" is boilerplate. However, neither BMI nor the Special Master cites any authority holding that the phrase should be disregarded if it is used with respect to more than one aspect of an invention. The patentees' use of the phrase "the cost function of the present invention"

requires that the cost function be limited to the specific cost function defined in Columns 4 and 13 of the specification. *See, e.g., Verizon Servs., Corp. v. Vonage Holdings Corp.*, 503 F.3d 1295, 1308 (Fed. Cir. 2007); *Netcraft Corp. v. eBay, Inc.*, 549 F.3d 1394, 1398 (Fed. Cir. 2008).

#### **VI. BMI Misstates the Factual Record**

BMI boldly states to the Court that “Accuray never argued that one skilled in the art would have understood that the term ‘cost function’ as used in claim 25 to mean the exact formulas and variables listed in certain portions of the specification.” (Response at 4) The record, however, shows that Accuray consistently and repeatedly asserted that a skilled artisan would have understood the term “cost function” to mean the specific cost function defined in both Columns 4 and 13. *See, e.g.,* Accuray’s Claim Construction Brief (Doc. No. 138 at pp. 40-42). For example, on pages 40-42 of Accuray’s claim construction brief, Accuray clearly stated:

One of ordinary skill in the art at the time would have understood the cost function claimed in the patent is the specific cost function disclosed at column 13. Rosen Dec. at ¶ 124. One of skill in the art would not have understood this term to mean any cost function because a variety of cost functions had been used with variants of the simulated annealing algorithm (and other algorithms) to optimize beam weights . . .

. . . Moreover, one of skill in the art would have appreciated that the cost function disclosed in column 13 was a non-linear cost function with multiple potential solutions (local minima), and that a stochastic algorithm like simulated annealing, which searches the solution space randomly, was the best algorithm to use with it. Rosen Dec. at ¶¶ 126-128. Ex. 22 at 60-65; Ex. 19 at 180; Rosen Dec. at ¶ 127.

Dr. Rosen further explained that one skilled in the art would have understood the “cost function” of claim 25 to mean the specific cost function defined in the specification, including the formulas and variables set forth in Columns 4 and 13.

#### **VII. The Cost Function Defined in Columns 4 and 13 is the Core of the Invention**

BMI acknowledges “the fact that the cost function formulas and variables disclosed in the specification are the only cost function formulas and variables disclosed in the specification in

detail,” but dwells on whether that embodiment is a “preferred” embodiment. (Response at p. 13). The specification does not state that the cost function of column 13 is merely an exemplary embodiment, or that other cost functions could have been used to perform the claimed functions. Indeed, the ’283 patent is a prime example of a patent that discloses a single embodiment and limits the invention to that sole embodiment. Here, every principle of claim construction that would mandate limiting the term to the sole disclosed embodiment requires limiting the construction of the term “cost function” to the cost function described in Columns 4 and 13 of the ’283 patent. *See, e.g., Nystrom v. TREX Co.*, 424 F.3d 1136, 1143-46 (Fed. Cir. 2005); *Warner-Lambert Co. v. Teva Pharms. USA, Inc.*, 418 F.3d 1326, 1341 (Fed. Cir. 2005).

#### **VIII. The Special Master Misapplied the Doctrine of Claim Differentiation**

BMI argues that the Special Master properly compared “asserted claims” to “non-asserted claims” in construing the term “cost function.” Again BMI misses the point. The issue is not that the Special Master compared “asserted” claims to “non-asserted” claims in his claim differentiation analysis, but rather that he improperly compared *apparatus* claims to *method* claims, two different statutory classes of invention. The proper analysis would be to compare independent claim 25 to claims 26-28, which depend therefrom and to compare independent claim 29 to claims 30-32, which depend therefrom. The Special Master apparently performed this analysis and concluded that “[c]laim 25 does not have any dependent claims that similarly recite how the cost function is obtained, or otherwise those formulas or variables.” (R. at p. 113). The claim differentiation analysis should have ended there.

#### **IX. Claim 25 is Limited to SARP According to the Functional Claim Language**

BMI again misunderstands Accuray’s argument with respect to SARP. Accuray did not argue that it was not an important issue, only that it was *not the only issue*. The Special Master improperly tried to narrow the disputed issues to that one, and Accuray refused to limit the

dispute. The fact that Accuray respected the Special Master's desire to end the hearing early, and summarized its arguments, does not mean that it conceded any of the terms were no longer in dispute. The Special Master's conclusion to the contrary was error.

Claim 25 is a system claim with functional language in each limitation. Each limitation describes a different step that the optimization algorithm performs to determine an optimized set of beam weights, and so Accuray referenced SARP, the only disclosed optimization algorithm, with respect to each disputed claim limitation to indicate it was the only algorithm claimed. The "modified" cost function is incorporated in the optimization algorithm, and at each iteration, calculates the cost of changing the beam weights. The inventors designed the modified cost function to be incorporated into existing SARP algorithms. *See* Col. 8:61-65; 9:45-48; 12:27-47; 15:43-46. As Dr. Rosen explained, complex non-linear cost functions work best with stochastic algorithms, such as SARP. Rosen Dec. at ¶¶ 126-128. In other words, the cost function and the algorithm fit together like a lock and a key. Other "keys" existed at the time, but only a very specific key would work to unlock the door. Col. 13:7-37 (emphasis added). Without an understanding of how the optimization algorithm works, one could not appreciate the features of the "modified cost function."

BMI argues that the conclusion that a stochastic algorithm is required by claim 25 is not based on the actual language of claim 25, but only on Dr. Rosen's testimony. BMI is wrong, and its argument points out exactly why construction of the other disputed claim limitations is critical. A skilled artisan, such as Dr. Rosen or Dr. Webb, would *immediately* recognize that the claim language describes the steps that a stochastic optimization algorithm, such as SARP, performs to determine an optimized set of beam weights. In other words, the functional claim language of these limitations is the "hook" for construing the claims as limited to SARP. *See*

*Renishaw v. Marposs Societa' Per Azioni*, 158 F.3d 1243, 1252 (Fed. Cir. 1998) (“To the extent that these passages refer to the preferred embodiment, they cannot be read into the claims without some hook. The claim term “when” is that hook.”) The Special Master’s refusal to construe the functional language in both Claims 25 and 29 was clear error.

BMI’s argument and the Special Master’s conclusion that claim 25 is not limited to SARP is particularly astonishing, given that neither BMI nor the Special Master had any trouble at all limiting claim 29 -- not only to SARP, but also to the specific cost function of column 13. The additional functional limitations which describe steps the optimization algorithm performs are the same for both claim 25 and claim 29 and should be construed. Construction of functional language of means limitations is permissible. *See Baran v. Medical Device Tech., Inc.*, 616 F.3d 1309, 1313-1316 (Fed. Cir. 2010) (court construed “detachable” in “a stylet means... said stylet means being detachable from said cannula”). One skilled in the art would readily appreciate that this functional claim language describes steps that only stochastic algorithms would perform. Dr. Rosen explained at length how stochastic algorithms work, and his explanation was not disputed by BMI. *See, e.g.*, Tr. at pp. 52:14 to 57:3. BMI discounts the testimony of Dr. Rosen as “litigation-inspired,” but offered no testimony from an expert of its own. BMI’s suggestion that the Court may not entertain extrinsic evidence unless there is an ambiguity in the claims is simply inconsistent with current case law. Under *Phillips*, it is perfectly permissible for the Court to consider the only extrinsic evidence presented. *See Netword LLC v. Centraal Corp.*, 242 F.3d 1347, 1356 (Fed. Cir. 2001). Dr. Rosen’s report and testimony is consistent with the specification’s disclosure of SARP as the only optimization algorithm.

BMI argues that without SARP, Accuray’s constructions make no sense. BMI’s argument only highlights its misunderstanding of the technology and its willful ignorance of the

perspective of the skilled artisan. Properly construing the functional limitations to explain to the lay juror what the algorithm does at each step to determine an optimized radiation beam arrangement will allow the jury to determine whether certain types of algorithms are covered by or excluded from claim 25. For example, certain optimization algorithms such as linear algorithms do not change the beam weights randomly, do not compare the cost of the previous iteration with the current iteration, and do not accept or reject the proposed set of beam weights depending on whether the cost is higher or lower than the cost of the previous iteration. Had the Special Master construed the functional claim language, as requested by Accuray, the relationship between that language and SARP would have been clear.

**X. Accuray Requests Construction of the Disputed Claim Terms and Phrases that the Special Master's Report Fails to Address**

Regardless of whether the Court modifies, rejects or adopts the Special Master's Report, there is still more work to be done. As explained in Accuray's Objections, the Special Master's Report fails to construe most of the disputed terms and phrases which the parties jointly listed in their "Joint Disputed Claim Terms" chart (Doc. No. 131). The parties expended considerable time and expense in briefing each of these terms and phrases, and neither side agreed that these terms did not require construction. Accuray acknowledged that SARP, the cost function, and the meaning of "changing the beam weights" are three "core" issues and are central to the dispute between the parties, but Accuray never agreed that those are the *only* issues, or that the construction of the remaining terms and phrases is somehow unnecessary.

As discussed above, the terms and phrases that the Special Master's Report ignores are important to the dispute because they describe how the optimization algorithm works to optimize a radiation treatment plan. For example, claim 25 recites the steps of "computationally chang[ing] the proposed radiation beam arrangement iteratively", "incorporating a cost function

at each iteration to approach correspondence of partial volume data associated with the proposed radiation beam arrangement to partial volume data associated with a pre-determined desired dose prescription”, and “rejecting the change . . . if the change . . . leads to a lesser correspondence . . . and accepting the change . . . if the change . . . leads to a greater correspondence to the desired dose prescription to obtain an optimized radiation beam arrangement.” These limitations explain how the algorithm interacts with the cost function. The last limitation of claim 25, for example, explains how the algorithm takes the cost calculated by the cost function during the previous iteration and compares it to the cost calculated during the current iteration and determines whether to accept or to reject the proposed change of beam weights. The claim language is difficult to understand because it is directed to a physicist, not to a layperson, and mirrors the language used by Dr. Webb and other skilled artisans. Without construction from the Court, a jury will not be able to look at an accused system and determine whether the accused system performs the same functions recited in claim 25. Accordingly, Accuray requests that the Court’s order on claim construction provide constructions of all of the terms and phrases listed in the parties’ Joint Claim Construction Statement, in the parties’ claim construction briefing, and in the parties’ PowerPoint presentations at the Markman hearing.

#### **XI. Accuray Requests Construction of the Functional Limitations in Claim 29**

BMI is correct that the parties agree that the functional limitations of claim 29 should have the same meaning as the corresponding functional limitations in claim 25. However, that does not end the claim construction analysis, because the Special Master’s Report failed to construe the terms and phrases recited within these functional limitations. *See Baran*, 616 F.3d at 1313-1316 (court construed “detachable” in “a stylet means... said stylet means being detachable from said cannula”). For example, the parties agree that the phrase “computationally changing the proposed beam arrangement iteratively” should have the same meaning in both claims 25 and 29

– but what does that phrase mean? The jury will not know what that phrase means in either claim 25 or claim 29 because it has not been construed. Accuray requests that the Court issue a construction for each of the disputed terms and phrases of claims 25 and 29 that can be provided to the jury at trial. BMI mischaracterizes Accuray’s comment at the Markman hearing regarding the construction of claim 29. Accuray said that the ability to reach agreement that the corresponding *structure* for each of the “means” limitations in claim 29 is a computer configured to run the simulated annealing algorithm was “masterful.” (Tr. pp. 104-108) Accuray did not state or imply that the Special Master need not construe the disputed terms recited within the functional limitations of claims 25 and 29.

## **XII. BMI Misunderstands Webb’s Disclosure Regarding Beam Weights**

BMI argues that the Webb disclosure provides support for the Special Master’s inclusion of the language “including changing the beam weights to zero or non-zero.” As Accuray argued in its objections, BMI confused beamlets with beams and beam weights with beam geometry. Changing a grain of beam weight of an individual beamlet would not change the beam weight of the entire beam to zero and remove that beam. Furthermore, the Webb disclosure refers only to the starting beam weights, not ending beam weights. The beam geometry is separate from the beam weight, and BMI’s attempt to read beam geometry into the claim construction should be rejected.

## **XIII. BMI’s Argument Regarding Indefiniteness Contradicts the Special Master’s Rationale for Handling Indefiniteness as a Separate Issue**

Contrary to BMI’s arguments, the Special Master’s rationale for handling indefiniteness as a separate issue because it has a different standard of proof, applies to both indefiniteness arguments for claim 25 and claim 29. For that reason, both indefiniteness arguments should be handled separately from claim construction.



Dated this 19th day of November, 2012.

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**CERTIFICATE OF SERVICE**

I hereby certify that on November 19, 2012, I electronically filed the foregoing document with the clerk of court for the U.S. District Court, Western District of Pennsylvania, using the electronic case filing system of the court. The electronic case filing system will send notification of such filing to all counsel of record. Counsel may access such document using the Court's system.

/s/ Kirsten R. Rydstrom  
*Attorney for Defendant Accuray  
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Dated: November 19, 2012